sion.[1] This reply brief is being filed to correct any misapprehensions that may arise.

1. Respondents omit any reference to the scant and totally inconclusive scientific evidence of expert witnesses offered in support of the broad claims made for the Evis device (see Pet. App. B, p. 76).[2] Instead, by repeatedly characterizing their user witnesses as "experienced operating engineers" and "licensed professionals" who "testified concerning carefully controlled parallel tests" (Br. in Opp., p. 6), respondents imply that what in fact was ordinary consumer testimony should be ascribed the same value as expert evidence based upon scientific investigation.

It may be that respondents' user witnesses were not confined to the "ignorant and the gullible" (*ibid.*). But, contrary to respondents' implications, not one of these "experts in the field of water uses" (Br. in Opp., p. 32) was either qualified before the Commission as an expert witness, or was able to explain how or why the Evis device performed its allegedly beneficial function. While some of the user witnesses testified to observing beneficial results in parallel

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[1] The physical exhibits that were part of the record before the Commission and the court of appeals have been filed with the Clerk of this Court. They include an Evis conditioner, divided in half to show its cross-sections (Comm. Ex. 10).

[2] As the Commission pointed out (Pet., App. B, p. 76): "* * * [R]espondents do not press their cause on the basis of any scientific evidence. They apparently concede that the effect resulting in the benefits to be derived from the use of their device, if any, is a scientific mystery."

tests and experiments, the Commission found (Pet. App. B, p. 76) "that the observations were not of tests under scientifically controlled conditions. Any one of a number of factors not connected with the Evis Water Conditioner could have caused any differences which may have been noted."

2. To overcome the overwhelming preponderance of the scientific evidence in support of the complaint, respondents, aside from asserting that "the threshold treatment of water simply cannot be scientifically explained" (Br. in Opp., p. 34), attack the tests conducted by the Commission's expert witnesses as "wholly artificial" (Br. in Opp., pp. 9, 31) and claim that there was not a "word of any testimony concerning the Evis unit in actual operation" (*ibid*). The record demonstrates, and the Commission found, that this simply is not the case. While most of the Commission's expert witnesses stated their opinion that nothing known to water science could possibly support a conclusion that any beneficial result could be derived from the Evis conditioner (see, *e.g.*, II, 482; III, 1116-1117, 1334, 1168), every one of these 21 highly qualified experts testified with respect to tests and experiments carried out with the Evis pipe in "actual operation." Contrary to respondents' suggestions (Br. in Opp., 22, 30), these tests did not involve the mere "trickl[ing]" or "dribbl[ing]" of a few litres of water through a rusty pipe, but were standard water treatment tests conducted either in the laboratory under highly controlled testing conditions or

in practical installations in the field.[3] Thus, the Department of Water and Power in the City of Los Angeles, apparently at the request of a representative of the corporate respondent (II, 23-24), ran extensive experiments with the Evis device in actual operation. These included tests to determine whether the pipe could in any way change the hardness of water, aid in the operation of base exchange softeners, improve the taste or odor of water, prevent the formation of scum, or remove scale (II, 12, 14-15, 15-16, 16-17, 109-112). These tests were conducted by water experts under controlled conditions with the Evis unit installed strictly in accordance with the instructions received with it (II, 2-3, 15-16, 28, 30, 32, 53, 85). They were totally negative in result.

Apparently, respondents do not dispute that the soil tests carried out by Dr. Allison at the United States Salinity Laboratory, at the request of an Evis representative (II, 240-241), involved the "actual operation" of the device, since they maintain (Br. in opp., p. 20) that "each of these tests * * * disclosed a beneficial difference in favor of water treated by the Evis Unit." The records produced by this witness did show, in some but not all instances, changes "in a beneficial direction" (II, 281, 301). But, as the

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[3] Witness Benezra, a chemist with 14 years experience (II, 557-558), installed an Evis pipe, under the direction of respondent Wells, on a main water inlet to the witness' home. He could find "* * * no difference" caused by the installation (II, 569). Yet respondents represented that the "silky-smooth quality" given to water by the Evis device could be immediately detected (VI, 845).

witness testified (II, 303), "these differences that have been brought out are minor" and (II, 294) were "within the limits of error of the measurements." Dr. Allison concluded (II, 238): "We could detect no *significant* differences between the normal water that we used as the control and Evis treated water" (emphasis added).[4]

Respondents attempt to discredit the testimony of Dr. James I. Hoffman, a National Bureau of Standards chemist with wide experience in the field of water treatment (III, 1115-1116), by choosing from his more than 200 pages of testimony certain allegedly "embarrassing" statements (Br. in Opp., p. 17). The record shows that Dr. Hoffman testified that he observed an Evis unit installed on an evaporator condensor at the Beltsville Experiment Station in Maryland and that the Evis unit appeared to be free from scale. However, respondents omit the most crucial aspect of this testimony. Dr. Hoffman stated (III, 1341): "I know nothing about the history of it or what caused that [scale] to fall off. I could not make any positive statements as to the value of the water treatment." In response to the question whether he had been advised by station personnel

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[4] Respondents contend (Br. in Opp., p. 30) that Dr. Wagner's infrared spectroanalyses, showing that the Evis device produced "no alteration in the molecular structure" of treated water, is totally irrelevant to the claims of beneficial results for the device. The argument overlooks the fact that respondents represented that "Evis always performs at its top efficiency because the delicate change of molecular organization established by EVIS-izing is then freed from the interference of electric currents" (RX 34; VI, 1011).

that the Evis conditioner was the cause of the descaling, the witness replied (III, 1340): "I was not so advised, but I heard under questioning by your representatives—I overheard this statement made." Dr. Hoffman's testimony that what he saw or heard at the Experiment Station was inconclusive and in his opinion did not require any modification of his testimony adverse to the Evis claims (III, 1341-1342) was never rebutted. Respondents made no effort to call as witnesses any of the personnel at the station who presumably could have testified from first-hand knowledge.[5]

3. Respondents also renew their attack on the alleged failure of the Commission's expert witnesses to follow the manufacturer's testing and installation instructions. While this phase of the case has been fully discussed in the petition, respondents now place particular emphasis on the alleged necessity "for appropriate grounding of the water system in order to eliminate stray electrical currents" (Br. in Opp., p. 27). The short answer is that the latest Evis instruction booklet, issued in 1956 (CX 57; VI, 954-

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[5] With respect to the surface tension tests conducted along with other experiments by Dr. Hoffman, respondents claim (Br. in Opp., p. 17) that the witness testified the tests had been incorrectly conducted and "should be summarily discarded" and that "he then specifically recanted his original testimony". Neither of these statements has any validity. Dr. Hoffman never stated that the surface tension tests standing alone would be conclusive (III, 1124-1125, 1319). He never suggested that they were unreliably conducted or should be discarded, or otherwise recanted his original testimony (III, 1358, 1360, 1362-1363, 1371).

955), omits any reference to the alleged grounding requirements to which its instructions had referred for a brief period in 1953 (CX 31c; VI, 898-900). Under such circumstances, one can scarcely credit the suggestion that grounding was a vital requirement.

4. Finally, respondents contend that the present proceeding is distinguishable from the typical case involving frauds or impositions on the consuming public, on the ground that here the user witnesses testified that they "*saw* scale removed from evaporators, boilers and numerous other types of equipment" (Br. in Opp., p. 32). The good faith of respondents' lay witnesses is not disputed. However, as the Commission pointed out (Pet., App. B, p. 76), "[a]ny one of a number of factors not connected with the Evis Water Conditioner could have caused any differences which may have been noted." Thus, respondents' contention (Br. in Opp., p. 32) that "[a]n expert opinion that a phenomenon which in fact occurs cannot occur is not substantial evidence" begs the basic question, namely, whether it is the Commission, rather than the reviewing court, that is to weigh the evidence, both scientific and lay, concerning the occurrence of the claimed phenomena. As shown in the petition, the court improperly substi-

tuted its judgment for that of the Commission on an evidentiary question committed to the agency.

Respectfully submitted,

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